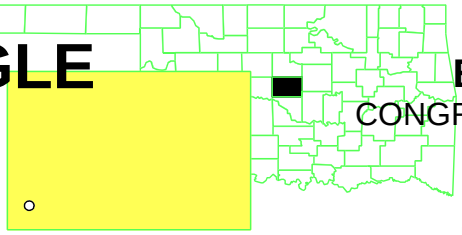
DOUBLE EAGLE REFINERY COMPANY

OKLAHOMA

EPA ID# OKD007188717



EPA REGION 6
CONGRESSIONAL DISTRICT 06
Oklahoma County
Oklahoma City

Updated: August 2004

Site Description

Location:
- Northeast Oklahoma City, Oklahoma
- Two blocks southwest of the intersection of Eastern Avenue (Martin Luther King Blvd.) and NE Fourth Street, bordered by the Atchison, Topeka and Santa Fe (ATSF) Railroad to the north.

Population:
- About 32,000 people live within three miles of the site.

Setting:
- Located in an industrial area of the city, southwest of the Fourth Street Abandoned Refinery Superfund site.
- One-half mile southwest of Douglas High School, one-quarter mile south of a residential area.

Hydrology:
- Shallow groundwater directly beneath the site is not usable as a drinking water supply due to extremely high concentrations of total dissolved solids, the result of oil and gas activities in the area.
- Deeper groundwater may be used as a supplemental water supply. However, area drinking water is currently supplied from area lakes several miles from the site.
- The nearest river is the North Canadian, about 2,500 feet south of the site.

Present Status and Issues

- The Oklahoma Department of Environmental Quality (ODEQ) has completed the first three semi annual sampling events of the groundwater. Results show that natural attenuation is taking place through the generation or transformation of daughter products from the original contaminants. Further investigations conducted by ODEQ and the U.S. Geological Survey (USGS) confirm that soil conditions are adequate to support the natural attenuation process and the process is taking place. The ODEQ and the USGS have noted that the high levels of sodium, total dissolved solids and chlorides (saltwater or brine) in waters of the upper aquifer make this a Class III or non potable aquifer. Brine contamination from historic activities associated with oil and gas production in the area has degraded the water quality to such an extent that these aquifers will never meet the criteria for potable water.
- The ODEQ and EPA continue to monitor groundwater through semi annual sampling events to verify that natural attenuation of contaminated groundwater is taking place.

Wastes and Volumes

l. Principal Pollutants

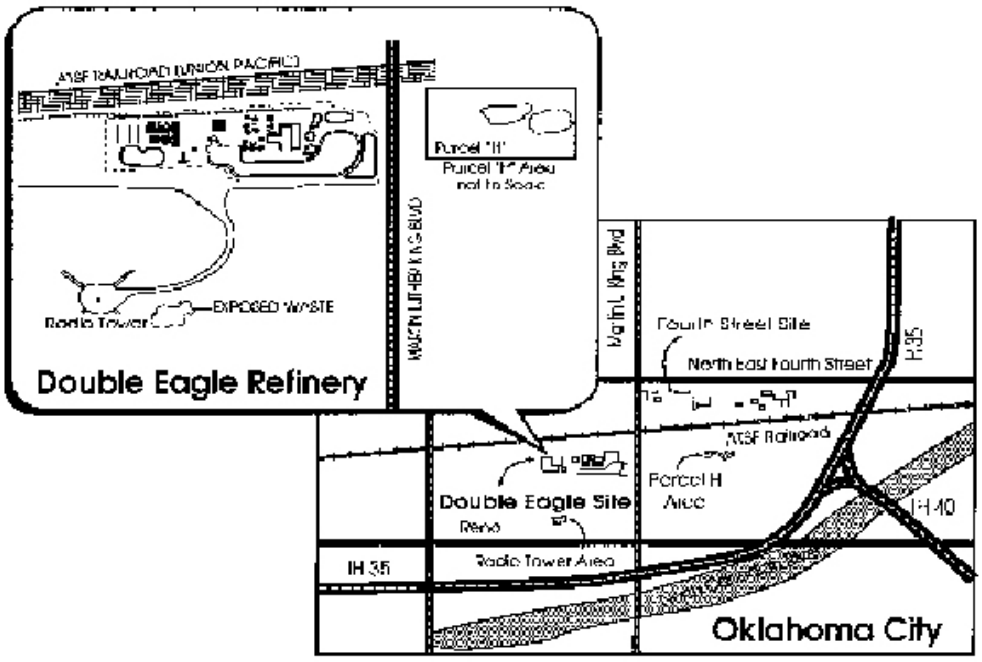
- Lead up to 13,300 ppm(sludge)
- Xylene(t) up to 48 ppm (soil/sediment.)
- Ethylbenzene up to 10 ppm (soil/sediment.)
- Trichloroethane 20 ppm (soil/sediment.)

(ppm = parts per million)
2. Volume: 43,000 cubic yards (approximately)

Site Assessment and Ranking

NPL LISTING HISTORY
Site HRS Score: 30.83
Proposed Date: 6/24/88
Final Date: 3/31/89
NPL Update: No. 7

Site Map and Diagram



The Remediation Process

Site History:

- From 1929 until the early 1980s, the facility re-refined used motor oils from truck

fleets, garages, automobile dealers, industries, and city, State, and Federal agencies primarily within the State of Oklahoma, by a process of acidulation and filtration.

- Based on soil, sludge, and water samples taken in October 1987, EPA proposed the site to the National Priorities List (NPL) in June 1988. Inclusion on the NPL was finalized in March 1989.
- EPA began a Remedial Investigation/Feasibility Study (RI/FS) in March 1990. Studies on the surface wastes were completed in September 1992; studies on the ground water were completed in September 1993.
- EPA selected stabilization and off-site disposal as the remedy to address surface contamination, Source Operable Unit (OU) No. 1, in September 1992.
- EPA completed the Remedial Design for the Source Control, OU No. 1, in April 1997.
- EPA conducted the Remedial Action for the Source Control Operating Unit (OU) No. 1 through the Superfund program while continuing the enforcement process.
- Asbestos abatement was also conducted at the site.
- Remediation of the site soils completed according to the signed Record of Decision for OU
- No. 1 in September 1998.
- EPA selected groundwater monitoring upon completion of the source removal as the remedy to address groundwater contamination, Groundwater Operable Unit, OU No. 2, in April 1994.
- EPA completed the Remedial Design for the Groundwater, OU No. 2, in March 1995.
- The Long Term Response Action for the Ground water OU No. 2 started in July 1995.
- EPA completed Phase I installation of the Groundwater system, OU No. 2, in March 1996, and the final phase was completed in September 1996.
- All field cleanup activities have been completed. The final construction completion inspection was conducted on June 29, 1999.
- The Preliminary Close Out Report (PCOR) for the Source Control OU No. 1, was signed by the Superfund Division Director on September 07, 1999. The PCOR documents that all construction activities have been completed at the Double Eagle Superfund site.
- EPA and ODEQ conducted a Five Year Review of the remedy and included all operable units of the Double Eagle Refinery Site and the Fourth Street Abandoned Refinery site. This report was completed on July 29, 2002.

Health Considerations:

- Direct contact threats from lead contaminated sludge and soil.

Record of Decision

Signed:
September 28, 1992 (Source), OU No. 1

April 19, 1994 (Ground water), OU No. 2

- The Source Control Record of Decision (ROD) calls for on-site stabilization and disposal in an off-site landfill permitted for non-hazardous wastes.

- The Groundwater ROD calls for groundwater monitoring upon completion of source removal.

Other Remedies Considered	Reason Not Chosen
1. No Action/Limited Action	Will not address all risks
2. On-site stabilization and Capping	Not considered permanent due to possible failure of cap.
3. On-site stabilization, Onsite Disposal	Was the recommended alternative but State preferred the more economical off-site disposal.
4. On-site Incineration, Onsite capping of ash	Does not address metals (primary risk)
5. Off-site Incineration, Off site Disposal	Does not address metals (primary risk)

Other Remedies Considered	Reason Not Chosen
1. No Action	Will not provide for protection of lower ground water.
2. Pump and Treat	Will not reduce overall risk due to possible off-site source and high dissolved solids.

Community Involvement

- Community Involvement Plan: Developed 1/90
- Remedy selection open houses and workshops: 9/89, 11/89, 8/90, 04/91, 6/92.
- Original Proposed Plan Fact Sheet: 7/10/92
- Remedy selection public meetings: 7/17/92 (source), 8/12/93 (groundwater)
- Remedial design/construction open houses: 11/94, 3/95, and 1/99.
- Milestone Fact Sheets: 9/89, 11/89, 2/90, 8/90, 3/91, 6/92, and 1/99.
- Citizens on a site mailing list: 36
- Constituency Interest:
  - Current and potential contamination to residential areas.
  - Health effects
- Site Repository: Ralph Ellison Library, 2000 Northeast 23, Oklahoma City, OK 73111

Technical Assistance Grant

- Availability Notice: 09/89
- Letters of Intent Received:
  1) Eastside Environmental Coalition - 02/13/90
- Final Application Received: 03/15/91
- Grant Awards: 06/11/91, 09/29/94, 05/08/98
- Budget Periods: 06/11/91-05/31/94, 06/01/94-05/31/97, 05/08/98-05/31/00
- Grantee: Eastside Environmental Coalition, Inc.
  Chon Rouse, Administrator
  Oklahoma City, OK
- Technical Advisor: T.L.B. Associates, Inc., Millersville, MD
- Current Status: Final decrease amendment issued and TAG closed out March 9, 2001.

Contacts

- **Remedial Project Manager (EPA):** Bartolome J. Cañellas, 214/665-6662, Mail Sta. 6SF-LP
- **Regional Public Liaison (EPA):** Arnie Ondarza, 1-800-533-3508, Mail Sta. 6SF
- **State Contact**: Dennis Datin, (405) 702-5125
- **Community Involvement (EPA):** Bartolome J. Cañellas, 214/665-6662, Mail Sta. 6SF-LP
- **Attorney (EPA):** Pamela Travis, 214/665-8056, Mail Sta. 6RC-S
- **State Coordinator (EPA):** Robie Hirt, 214/665-8079, Mail Sta. 6SF-LT

Enforcement

- Enforcement letters were sent to 453 companies in September 1989 and August 1991 requesting information on their involvement in the Double Eagle facility.
- Records identifying 46 potentially responsible parties were found in the Oklahoma State Department of Health archives in October 1992.
- At the end, thirty three (33) PRPs were identified for the site.
- Two (2) major PRPs were identified and only one (1) viable.
- EPA completed in 2002 a final settlement offers with the de 31 minimis PRPs based on a waste allocation estimate.
- EPA is currently pursuing the major viable PRP identified to reach a settlement offer.

Benefits

- Completion of the remedy selected for the Double Eagle site mitigated risks from 43,000 cubic yards of contaminated sludge to protect approximately 32,000 people living within three miles of the site.